

OF MAN EVOLVED

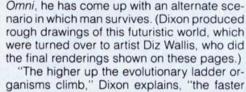
BY PAMELA WEINTRAUB

A bulbous, red-veined creature with thick webbed claws clings to a 100-foot-tall tree and waits for dawn. When the first rays of sun creep across the flat, deadened plain, the animal sprouts fanlike blossoms that soak up the heat. Thus energized, it floats down to a pulsating lake and drinks through a trunk suspended from its midriff. A face is now visible amid folds of skin and veins. A human face.

The time is 50 million years in the future, on the planet Earth. And the hard-shelled, darkskinned creature swooping from the mossy branch is our own descendant.

This future man (opposite) and the animals on the pages that follow were designed by

Scottish paleon-tologist and model maker Dougal Dixon, author of the critically acclaimed book After Man. In After Man, Dixon portrays the animals and plants of a future world in which man had become



extinct. Now, responding to a suggestion by

"The higher up the evolutionary ladder organisms climb," Dixon explains, "the faster they're likely to become extinct. A group of shellfish, for example, might last sixty million years, while carnivorous mammals would last six million. Man, who's been on Earth half a million years, has already begun to decline."

The cause of our deterioration, Dixon says, is medical science, which each day spares

thousands of people suffering from disease. In centuries past, he contends, individuals with maladies ranging from asthma to diabetes would have died before adulthood. But today they live on, and,





ILLUSTRATIONS BY DIZ WALLIS

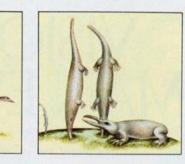
as they reproduce, they transmit their genes from one generation to the next.

As the millennia pass, Dixon believes, our genetic "load" will grow heavier and heavier, burdening almost everyone

with debilitating disease. Eventually our hearts and lungs will collapse, our muscles will atrophy, and we'll rely on technology for survival.

Man millions of years hence will be a pathetic bundle of withered organs and limbs, Dixon predicts. "He'll have a shriveled, useless body and paralyzed legs, with only the sex and sense organs intact." Yet his brain will have flourished and grown. Ten times heavier than the rest of the body, it will provide him with psychic powers and enough intelligence to persist.

In fact, 50 million years from now man will be smart enough to genetically engineer a whole synthetic body, one that will surround and sustain the real body from the moment of birth. Dixon portrays that far-distant descendant in various configurations, on page 94. At the bottom of the page, tomorrow's man dangles nude, his meager physique far too frail to sustain his bulging, prodigious brain. In the picture at the top right, though, he has entered his crucial life-support system—a nutlike shell strung with an array of healthy body organs cloned from ancient genetic stock. Built to supply man's every need, it will come complete with a trunk for feeding, uplifted leaves to gather sunlight, and claws for



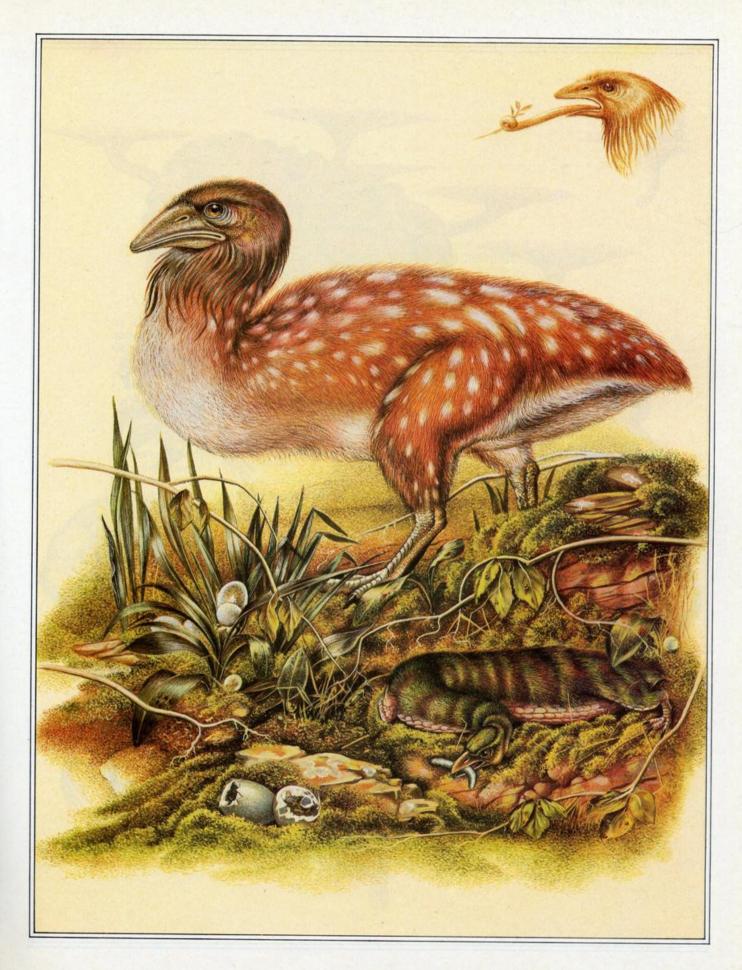
roosting in trees.

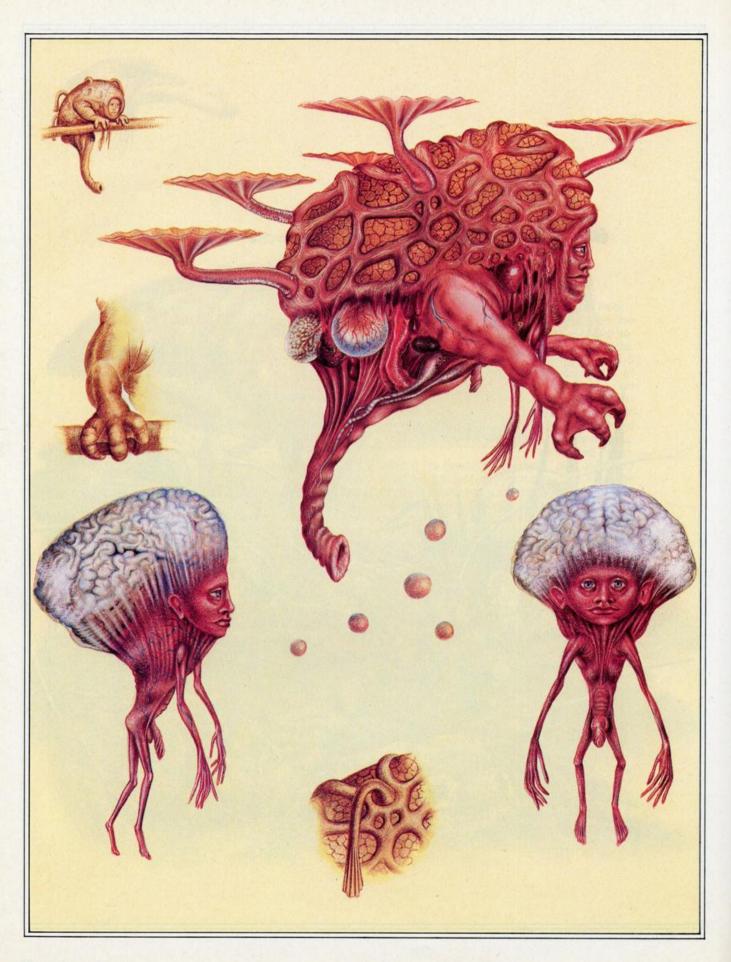
For, by then, the trees will have become man's home. During the first 5 million years of human life on Earth, Dixon explains, man will have depleted forests and fields, obliterated moun-

tains in his search for minerals, and colonized every square inch of the land and the sea. The planet will become a crumbling wasteland, its valleys turned to desert and its oceans crammed with garbage from generations past. So in 50 million years, with few resources left, man will live out his life atop looming hardwood trees. He'll grow his edibles in lakes of blue-green algae that have been genetically engineered to convert sunlight into human food. And to eat, he'll employ his expanded mental powers, "willing" nourishment up from the lake or teleporting himself down for a meal on the shore.

Floating over his arboreal society, man will see a landscape far different from anything his ancestors knew. A heavy mist will blur the plains, now dense with wild grass and trees. The emerald glow of algae lakes will pierce the fog. Here and there will be a glass dome, inhabited by visiting "outlanders," the offspring of humans who left Earth for distant planets millennia before.

Stretching out from the domes in every direction, the underbrush will swarm with life. Though mammals will have perished during the centuries of human destruction, birds will make their homes in burrows and caves. Having survived





by soaring high above the carnage, they will virtually dominate the planet. Hoofed species traversing the grasslands (depicted on page 92, at left) will sprout long, nimble legs to escape their power-



ful predators (page 91, right and left). Birds at the edge of man's protein-rich algae lakes (page 92, right) will nestle deep in the ground, while those inhabiting the forest floor (page 93) will develop muscular necks to help them push through the brambles and vines.

Another sort of creature, says Dixon, will also stalk the wilderness: "monsters" created by careless genetic engineers. Discarded human body organs made by inept scientists will inevitably have attached to inquisitive scavenging animals, forming bizarre hybrid creatures like those on this page. Then, every so often, a few cells from the human organ will fly off from these animals and attach to a nearby mate or offspring. The cells will eventually mature into another, identical human organ, and in this way one hybrid creature after another will be formed.

Usually, Dixon says, the extra organ will sap these creatures of energy, and their particular strain will last only a generation or two. But occasionally the extra lung or heart will confer some advantage to an animal, enabling it to run or breathe more efficiently than its brethren. "That creature would then flourish, and if it were particularly successful, it might provide seed for the



next phase of life."

Dixon's picture of our future world may be appalling, but, fortunately, few scientists share his view. "I don't see how the individuals Dixon postulates could persist," says physical anthro-

pologist Noel Boaz, of New York University. "Evolution proceeds through the law of natural selection, which states that the fittest survive." So if there were just a few able-bodied individuals, they'd probably continue to reproduce, while their competitors—Dixon's puny humans—met a swift but timely end.

Anthropologist C. Owen Lovejoy, of Kent State University, in Ohio, adds, "If we have the ability to genetically engineer bodies, then we could improve human anatomy, not reduce its effectiveness. We could make individuals live longer, suffer less disease, run more efficiently, and so on. They'd be much better adapted to the earth than any of us are now."

Most other researchers agree. Molded by natural selection and gene technology, they say, future man will *strengthen* his body and mind. According to Baltimore gerontologist Richard Cutler, the resulting superhumans would reach sexual maturity at twenty-six, middle age at eighty, then live until two hundred or more. Their brains would be twice as large and powerful as ours. "A bigger brain requires more energy," Cutler adds, "and so the future human would need a larger body—not a smaller one—to provide it."